

WHEN FAILURE HURTS THE MOST: GOAL FUSION
AND THE IMPACT OF NEGATIVE FEEDBACK ON
SELF-CONCEPT CLARITY

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WHEN FAILURE HURTS THE MOST: GOAL FUSION
AND THE IMPACT OF NEGATIVE FEEDBACK ON
SELF-CONCEPT CLARITY

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CHAPTER I

INTRODUCTION

In early 2011, a professor of astronomy at a Minnesota community college spoke out against the current zodiac system. The Star Tribune of Minneapolis picked up his story that announced that, due to a slight change in the Earth's axis, the zodiac signs were in the wrong place. Thus if you thought you were a Pisces you are "actually Aquarian" (Ward, 2011). The professor purported that this "wobble" meant that the zodiac signs had new dates and that there was, in fact, a 13th sign (CNN, 2011). For example, the sign Aquarius, ranging from January 21 to February 18, was reported as now ranging from February 16 to March 11.

As news of this report spread around the world due to social media and air time on major news networks such as CNN, many devout horoscope followers were thrown into a panic. Astrologists around the country were bombarded with questions and concerns from their clients while many believers took to Facebook and Twitter to voice distress. One Twitter user asked, "Does that mean that I'm not anymore who I used to be?" and others were reported as asking similar identity questions (McKinley, 2011). Unintentionally, this professor had started a small astrology identity crisis with information contradictory to that which was widely accepted as true.

This incident exemplifies the potential uncertainty of the self-concept when faced with contradictory information. The author posits that this contradictory information can come about in the form of new information (as in the above incident) or in the light of negative feedback following an activity that is central to a person's self-concept. The purpose of the present research is to investigate the effects of negative feedback on clarity of the self-concept. Furthermore, the author asserts that this effect should be moderated by the extent that the new information conflicts with features considered "central" to their self-concept, a construct termed Goal Fusion.

CHAPTER II

LITERATURE REVIEW

The Self Concept

For several decades, psychologists have adjusted and refined the field's view of the self-concept (see Kihlstrom & Cantor, 1984; Kihlstrom, Cantor, Albright, Chew, Klein & Niedenthal, 1988; Markus, 1977; Markus & Wurf, 1987). Currently the self-concept is viewed and defined as the knowledge of one's self that includes values, beliefs, goals, and attributes that are specific such as physical characteristics (Campbell, Trapnell, Heine, Katz, Lavalley, & Lehman, 1996). The stability of the self-concept has been thoroughly explored in research. For example, Diehl, Jacobs, and Hastings (2006) found participants' selves (e.g., self with family, self with friends, etc.) were stable and consistent across time. The implications of this research suggest that the more a person can feel and behave in a way that is consistent with his or her self-concept, the greater the stability of the self-concept (Diehl, Jacobs, & Hastings, 2006). Further research on the self-concept has focused on two sub areas: content and structure (Campbell, Assanand, & Di Paula, 2003). Each area has been broken down even further in an attempt to explain the complex nature of the self.

Self-concept content is divided into knowledge and evaluative components (Campbell et al, 1996; Campbell, Assanand, & Di Paula, 2003). Self-concept knowledge has been reported as being how one answers the question “Who am I?” whereas self-concept evaluation is how one answers the question “How do I feel about who I am?” For example, Jackson might define himself as a baseball player because he has a talent for hitting and throwing a baseball (knowledge component) and believing that he is a good baseball player makes him feel good about himself (evaluative component). Self-content structure can also be divided into two subareas that include pluralism (complexity and compartmentalization of the self-concept) and unity (differentiation, clarity, discrepancies, and aspects of the self-concept). Self-concept pluralism refers to the amount of “specialized identities” one possesses whereas self-concept unity refers to the possession of “coherent, integrated selves” (Campbell, Assanand, & Di Paula, 2003).

With the foundation of content and structure set firm, psychologists have focused on one central question in the area of the self-concept: how do we form it? The answer to this complex question comes as a combination of past experiences and social comparison. Markus (1977) states that we develop information about ourselves based upon past experiences and then orient our behavior in a way that fits this past information. Because we must use past information, one must consider the role of memory in self-concept development. To infer about one’s self-concept, one must use both episodic and semantic memory (Kihlstrom & Cantor, 1984). Semantic memory includes our general knowledge of the world while episodic memory includes our personal experiences. Therefore, Jackson might develop the self-concept of “I am a good baseball player” because he knows that other baseball players that have a similar batting average as himself are considered good players (semantic) and he remembers that he is a good hitter based upon the memories he has of batting during games (episodic).

Social comparison is also a factor in defining one’s self-concept. Social comparison can be defined as the act of comparing our behaviors, abilities, and beliefs to those of others (Festinger,

1954). Gilbert, Giesler, and Morris (1995) found that social comparison can occur outside of awareness and that, like conscious social comparison, self-evaluation effects occur. Social comparison thus makes it possible to understand our place as compared to those around us and in doing so, provides us with information on what can be for our possible selves (Suls, Martin, & Wheeler, 2002). The implications for this will be discussed further in the proposal. It is important to emphasize here that the self-concept does partly depend on peoples' social environment (i.e., the people around them). This concept will be used in the proposed experiment.

Self-Concept Clarity

As noted above, there are many aspects about the structure of the self-concept. However, this proposed study will only focus on one of these aspects: self-concept clarity. Self-concept clarity (SCC) is the extent that the contents of one's self-concept are clearly defined, consistent, and temporally stable (Campbell et al., 1996). Extensive research has been conducted over the past twenty years to extend the field's knowledge of SCC and how those high in SCC differ in several areas compared to those low in SCC. Those low in SCC have been demonstrated to have low grades in school (Thomas & Gadbois, 2007), and used the internet more in an attempt to define their selves (Matsuba, 2006). Those high in SCC were more likely to use cooperative problem-solving techniques than their low in SCC counterparts during social conflict (Bechtoldt, De Dreu, Nijstad, & Zapf, 2010) and had higher relationship satisfaction and commitment (Lewandowski Jr., Nardone, & Raines, 2009). In regards to self-esteem, it has been shown that those lower in SCC are also low in self-esteem (Campbell, 1990; Stinson, Wood, & Doxey, 2008; Story, 2004).

The influences of personality factors on SCC have also been investigated. SCC has been shown to positively correlate with neuroticism, conscientiousness, agreeableness, and extraversion but was not correlated with openness to experience (Campbell, 1996). Stucke and Sporer (2002) found that narcissism and SCC have been shown to together predict anger and aggression following

ego-threat. This research found that people low in SCC but high in narcissism are more likely to give negative evaluations than individuals with high SCC (Stucke & Sporer, 2002).

Lastly, SCC has been explored across certain demographical information. For gender, it has been found that women's SCC can be altered through a self-reflection process about their traits but for men this does not occur (Csank & Conway, 2004). Culturally, SCC has been found to differ between Western and non-Western cultures. Campbell and her colleagues (1996) found that Canadian participants had higher SCC than Japanese participants¹. Lastly, it has been shown that older adults have higher SCC than younger adults (Bluck & Alea 2009).

Self-Concept and Goals

In addition to the types of memory one uses to define the self, Kihlstrom and colleagues (1988) also argued that individuals must use the thought of potential future selves as a source of the self-concept. By doing this, one can orient oneself on a path that will lead to achieving that desired future self. Kihlstrom and colleagues (1988) stated that this future self will provide a foundation that one can build upon and will "suggest the distance to be covered, or changes to be made" until this future self is achieved (p. 165). These statements suggest that in order to become the person we want to be, we must imagine that future self and then set ourselves up to achieve it. This assertion fits well with goal literature. Setting a goal requires that one determine the expected value of achieving that goal if one has the means to achieve it (see Custers, 2009; Locke & Latham, 2002; Oettingen & Stephens, 2009). In line with Kihlstrom and colleagues (1988) as well as the goal literature, Markus and Wurf (1987) further asserted that people not only select goals that will represent future achievement but also will provide lasting self-definitions.

Therefore, we set goals now that potentially assist us in becoming the people we want to become in the future.

¹ Campbell and colleagues (1996) hypothesized that the difference in SCC between the Canadian and Japanese participants could have been due to the nature of the items on the original Self-Concept Clarity Scale (SCCS; Campbell et al, 1996).

Goal Fusion

De Dreu and Knippenberg (2005) stated that people develop a sense of ownership over arguments during an altercation because these arguments become an extension of their self-concept.

Research has been conducted on how individuals can also become fused with others. Swann and colleagues found that individuals can become fused with their social group by a depersonalization process (Swann, Gomez, Seyle, Morales, & Huici, 2009). This act of inclusion has also been shown to occur with closer others such as romantic partners (see Aron, Aron, & Smollan, 1992; Slotter, Gardner & Finkel, 2010). Burkley, Anderson, and Curtis (2012) assert the same premise except with a person's goal similar to an argument, group or close other. This act of inclusion is what Burkley et al (2012) terms Goal Fusion. Goal Fusion can be defined as the extent that people include a specific goal into their self-concept. In order to measure this novel construct, Burkley et al (2012) developed a measure of goal fusion and found across different goals that the degree of goal fusion impacts goal relevant thoughts, behavior and affect. That is, people who are fused with their goals show greater goal commitment, consider their goal as more important, and are more willing to exert effort toward goal attainment. Importantly, these effects have been demonstrated even after controlling for other goal-relevant constructs (e.g., contingencies of self-worth).

Present Theory

The goal of the present study was to investigate the degree that negative feedback effects self-concept clarity and how these effects are moderated by goal fusion. Although the self becomes extremely resistant over time, it is still susceptible to contradictory information (Markus, 1977). Ayduk, Gyruk, and Luerssen (2009) demonstrated that SCC can decrease in certain people following rejection feedback (i.e., not being picked for an activity by other peers). These findings match with social comparison and lay the foundation that it is possible to break down this

resistance. In light of the information that has been provided here, I hypothesized that individuals who received negative feedback and who were highly fused with the target goal would display lower self-concept clarity than individuals who receive positive feedback. For instance, if I consider myself a jogger and jogging is highly included into my self-concept compared to someone that simply “goes jogging on the weekends,” then my reaction to breaking my leg and being unable to ever jog again will be vastly different in terms of how I see myself (i.e., self-concept clarity). Compared to someone that does not include the goal of jogging into their identity to the same extent that I do, this event will be quite devastating in how I have come to define myself.

CHAPTER III

METHODOLOGY

Participants and Design

One hundred and seventy-two students (98 women) participated in this study for course credit. These participants were college students from Oklahoma State University who were currently taking a psychological course. Participants were randomly assigned to one of three experimental conditions: positive feedback ($N = 56$), negative feedback ($N = 57$), or no feedback ($N = 59$).

Procedure and Materials

Participants volunteered for the study through the SONA system. Upon arrival, participants were asked to read and sign a consent form (Appendix A) detailing the purpose of the study, possible risks and benefits of participation, and information about the researchers. Participants then completed the Goal Fusion question (Appendix B) that consists of a pictorial item that assesses the extent to which an individual includes a goal into their identity. Next, participants had twenty minutes to complete an analytical section of a standardized test (Appendix C). The purpose of the analytical test was to provide participants with a performance task and then be given feedback on that performance.

After twenty minutes, the researcher collected the analytical questionnaire and provided false feedback based upon the condition that the participant was randomly assigned. That is, participants were given either positive feedback (they scored higher than other OSU psychology students), negative feedback (they scored lower than other OSU psychology students), or no feedback (see Appendix D for complete feedback scripts).

After the feedback, the participants were asked to complete the Self-Concept Clarity Scale (SCCS; Campbell et al, 1996; Appendix E), the Identity Disturbance items (Appendix F), career and school major self-concept clarity items (Appendix G), and a demographic questionnaire (Appendix H). The primary dependent variable for this study was the participant's SCC score. The SCCS is used to measure a person's self-concept and how clearly this concept is defined. This scale consists of 12 items that are rated on a 7-point Likert scale (-3 = Strongly disagree, 3 = Strongly agree). High scores on the SCCS indicate a more clearly defined self-concept. Participants were debriefed upon completion. During the debriefing, the researcher described, in detail, the deception that was used and the motive for it (see Appendix I for complete debriefing details). Participants were free to ask any questions that they might have during the debriefing session. Before leaving, participants were provided a copy that consisted of contact information for counseling sources should they feel they needed to seek such services (Appendix J).

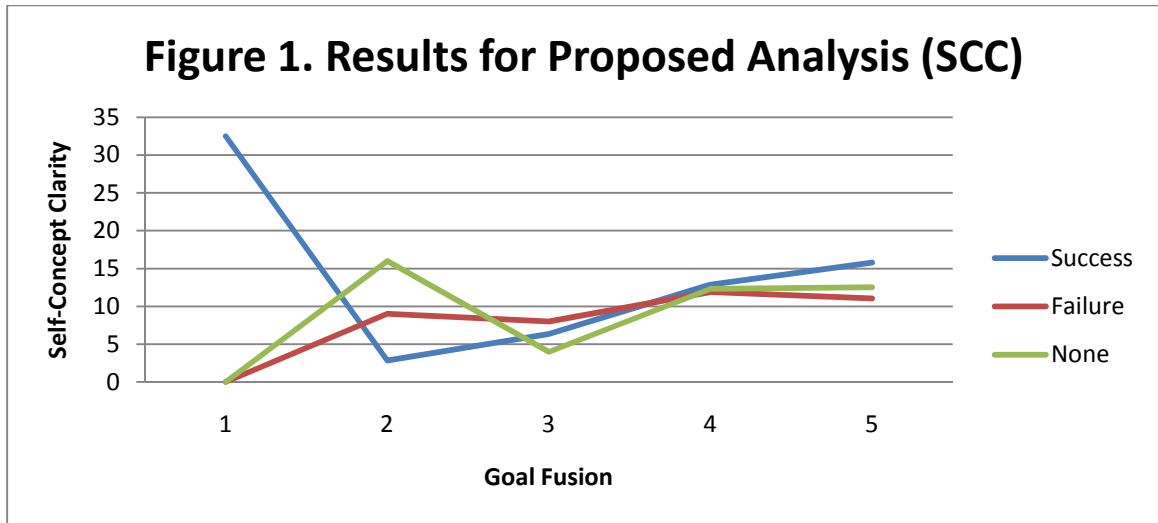
CHAPTER IV

RESULTS

Primary Analysis

Hierarchical regression analyses were conducted to assess whether Goal Fusion moderated the relationship between feedback and SCC. Specifically, SCC was regressed onto the full range of Goal Fusion (mean-centered) and a two dummy coded condition variables (00 = No Feedback; 01 = Positive Feedback; 10 = Negative Feedback), and the multiplicative cross-product of Goal Fusion and condition. Independent main effects of Goal Fusion and condition were entered into the first block of the regression equation and the cross-products were added in the second block (Blanton & Jaccard, 2006). The results for this regression analysis are presented in Table 1.

Results from the first block indicated none of the main effects were significant, although there was a hint for the impact of Goal Fusion, $t(166) = 1.59, p = .12$. Results from the second block indicated that the interactions were also not significant. It can be seen in Figure 1 that the results are trending in the predicted direction for the Positive Feedback and Negative Feedback conditions with individuals receiving Positive Feedback and who were high in Goal Fusion demonstrating higher SCC scores and individuals receiving Negative Feedback in the same fusion level reporting lower SCC scores. However, this is only possible when ignoring the first or lowest



Results from the first block indicated none of the main effects were significant, although there was a hint for the impact of Goal Fusion, $t(166) = 1.59, p = .12$. Results from the second block indicated that the interactions were also not significant.

Table 1. Goal Fusion \times Feedback (success, failure, and none) on SCC

Model		<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
1	Constant	10.23	1.81		5.66	.00
	Goal Fusion	1.67	1.06	.12	1.58	.12
	Positive Feedback	1.21	2.59	.04	.47	.64
	Negative Feedback	-.33	2.58	-.01	-.13	.90
2	Constant	10.23	1.82		5.62	.00
	Goal Fusion	1.69	2.04	.12	.83	.41
	Positive Feedback	1.24	2.61	.04	.47	.64
	Negative Feedback	-.30	2.60	-.01	-.12	.91
	Interaction Positive	.30	2.63	.01	.11	.91
	Interaction Negative	-.45	2.77	-.02	-.16	.87

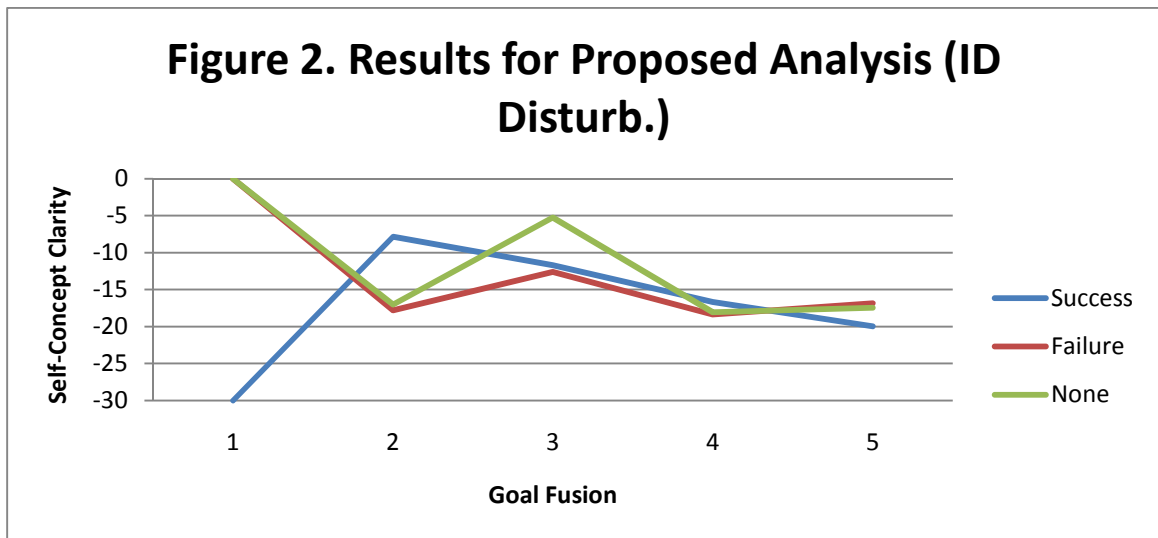
It can be seen in Figure 1 that the results are trending in the predicted direction for the Positive Feedback and Negative Feedback conditions, with individuals receiving Positive Feedback and who were high in Goal Fusion demonstrating higher SCC scores and individuals receiving Negative Feedback in the same fusion level reporting lower SCC scores. However, this is only possible when ignoring the first or lowest level on Goal Fusion that was composed of only two individuals.

I also conducted hierarchical regression analyses with the identity disturbance items as the dependent variable instead of SCC. These items were regressed onto the full range of Goal Fusion (mean-centered and a two dummy coded condition variables (00 = No Feedback, 01 = Positive Feedback, 10 = Negative Feedback) and the multiplicative cross-product of Goal Fusion and condition as in the above analyses. Once again the independent main effects of Goal Fusion and condition were entered into the first block of the regression equation and the cross-products were added in the second block (Blanton & Jaccard, 2006).

Table 2. Goal Fusion \times Feedback (success, failure, and none) on Identity Disturbance Items

Model		<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
1	Constant	-14.06	1.73		-8.14	.00
	Goal Fusion	-2.21	1.01	-.17	-2.19	.03
	Positive Feedback	-1.68	2.48	-.06	-.68	.50
	Negative Feedback	-1.61	2.47	-.06	-.65	.51
2	Constant	-14.02	1.74		-8.08	.00
	Goal Fusion	-3.56	1.95	-.27	-1.82	.07
	Positive Feedback	-1.72	2.49	-.06	-.69	.49
	Negative Feedback	-1.72	2.48	-.06	-.70	.49
	Interaction Positive	1.39	2.51	.07	.56	.58
	Interaction Negative	2.42	2.65	.10	.92	.36

The first block of results indicated that the main effect of Goal Fusion was significant, $t(166) = -2.19, p < .05$. However no other significant results were found in the rest of the analyses (first and second blocks). The results for this regression analysis are presented in Table 2. Looking at Figure 2, the trend for individuals in the Positive Feedback condition is what I expected when you, once again, ignore the least fused group that only consisted of two individuals. Looking at the other four fusion levels and the Positive Feedback condition only, one can see that as individuals become more fused with the goal, the reported scores on the identity disturbance items tended to decrease as expected. The No Feedback and Negative Feedback conditions were not in any expected trend.



Exploratory Analyses

Upon looking at the line graph of the results (see Figure 1 and Figure 2), it is clear that the No Feedback condition did not act like the baseline as predicted. Instead, the No Feedback condition was an erratic up and down pattern. This is problematic since the above analysis uses the No Feedback condition as a comparison. To address this issue, I conducted a set of exploratory analyses that included only the Positive and Negative Feedback conditions. I also excluded the

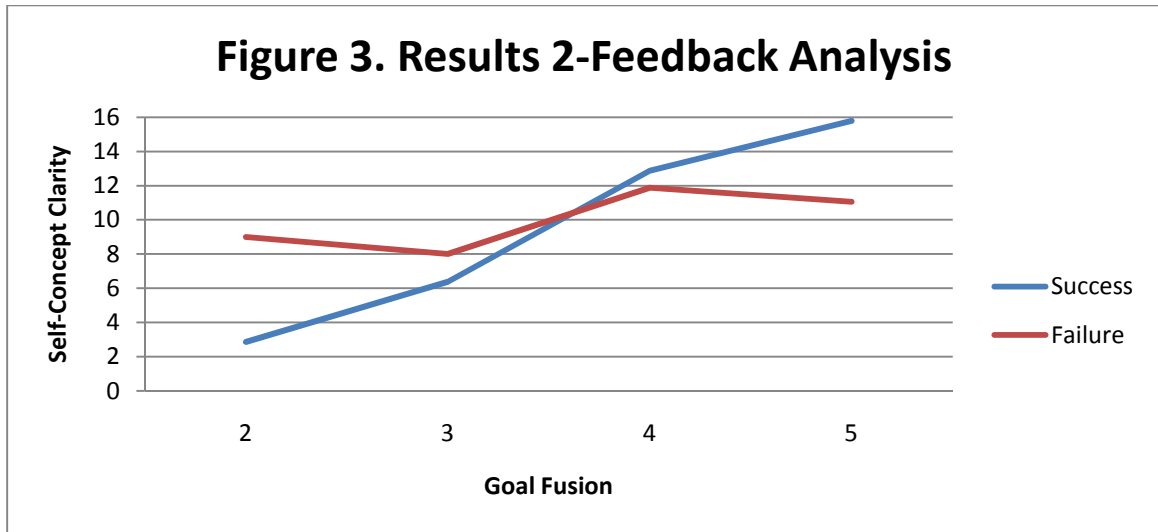
two individuals who made up the lowest possible Goal Fusion category because they were outliers, resulting in a sample size of 111 participants. SCC was regressed onto the full range of Goal Fusion (mean-centered), a dummy coded condition variable (0 = Positive; 1 = Negative), and the multiplicative cross-product of Goal Fusion and condition.

Table 3. Goal Fusion \times Feedback (success and failure) on SCC

Model		<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
1	Constant	10.48	1.83		5.73	.00
	Goal Fusion	2.92	1.27	.22	2.30	.02
	Feedback	-.65	2.56	-.02	-.25	.80
2	Constant	10.46	1.82		5.73	.00
	Goal Fusion	4.57	1.79	.34	2.56	.01
	Feedback	-.53	2.55	-.02	-.21	.84
	Interaction	-3.32	2.54	-.17	-1.31	.19

Once again, the independent main effects of Goal Fusion and condition were entered into the first block of the hierarchical regression equation and the cross-product was added in the second block (Blanton & Jaccard, 2006). The results for this regression analysis are presented in Table 3. Results from the first block revealed a significant main effect of Goal Fusion, $t(107) = 2.30$, $p < .05$. The main effect for condition was not significant, $t(107) = -.25$, $p = .80$. Although results from the second block indicate that the predicted interaction was not significant, there was a hint of an effect, $t(107) = -1.31$, $p = .19$.

As expected and seen in Figure 3, individuals in the Positive Feedback condition that were most fused with the goal reported clearer self-concepts than individuals who were in the Negative Feedback at the same fusion level. Likewise, individuals in the Negative Feedback condition and that least fused with the goal reported clearer self-concepts than individuals in the Positive Feedback at the same fusion level.

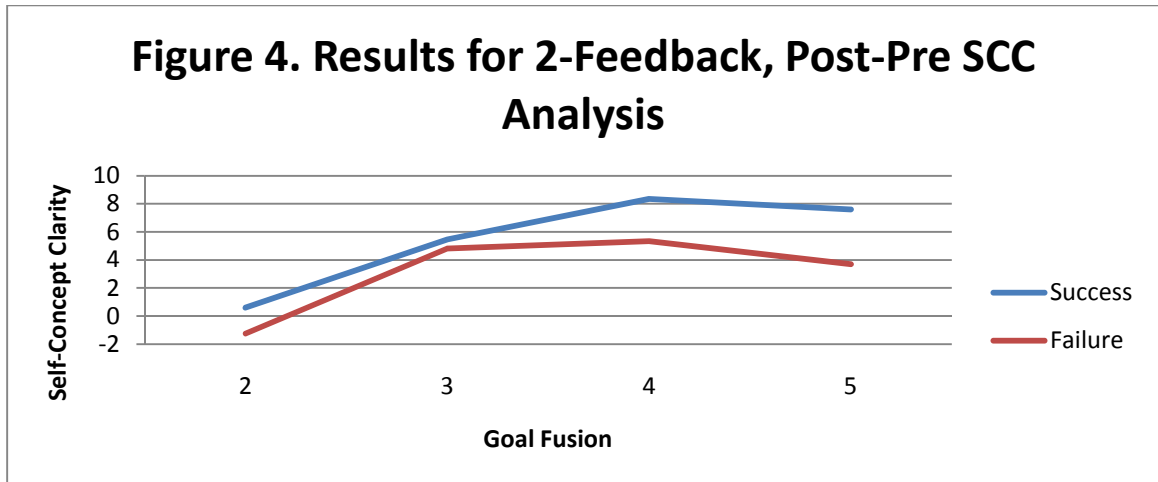


I also conducted a similar set of regressions on the difference score between 90 participants pre- and post-assessments of SCC (Table 4). The sample was reduced from 111 participants to 90 participants because 21 participants had contradictory identification information between the prescreener and the actual survey and therefore could not be included in this analysis.

Table 4. Goal Fusion \times Feedback (success and failure) on SCC (Post SCC – Pre SCC)

Model		<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
1	Constant	6.37	1.37		4.63	.00
	Goal Fusion	1.30	.98	.14	1.33	.19
	Feedback	-2.29	1.92	-.13	-1.20	.24
2	Constant	6.29	1.38		4.55	.00
	Goal Fusion	1.96	1.38	.21	1.42	.16
	Feedback	-2.20	1.93	-.12	-1.14	.26
	Interaction	-1.34	1.96	-.10	-.68	.50

In this analysis, I tested if Goal Fusion and/or condition impacted participants *change* in SCC score. Results indicated that the main effects and the interaction were not significant. Figure 4 demonstrates that the Positive Feedback condition was in a suitable trend for my predictions with SCC scores increasing as fusion with the goal increased. However, the Negative Feedback condition followed in a similar, unexpected suit as the Positive Feedback condition.



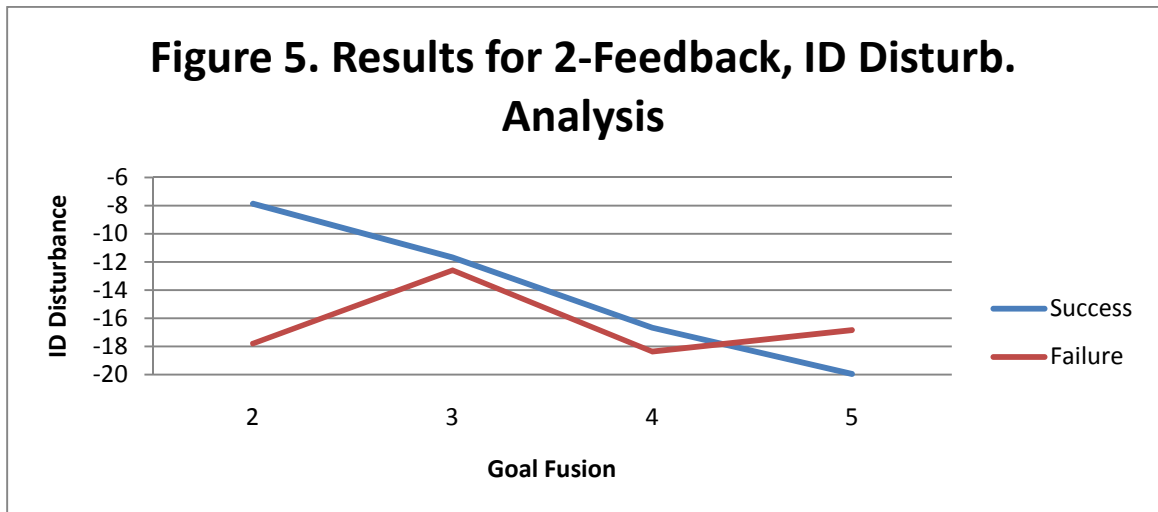
Finally, I examined the identity disturbance items in relation to Goal Fusion and two Feedback conditions. Results, presented in Table 5, from the first block revealed a significant main effect of Goal Fusion, $t(107) = -2.10, p < .05$. The main effect for condition was not significant, $t(107) = -.26, p = .79$. Results from the second block indicate the predicted interaction was also not significant, $t(107) = 1.19, p = .24$.

Table 5. Goal Fusion \times Feedback (success and failure) on Identity Disturbance Items

Model		<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
1	Constant	-14.99	1.81		-8.30	.00
	Goal Fusion	-2.64	1.26	-.20	-2.10	.04
	Feedback	-.66	2.52	-.03	-.26	.79
2	Constant	-14.97	1.80		-8.31	.00
	Goal Fusion	-4.12	1.76	-.31	-2.34	.02
	Feedback	-.77	2.52	-.03	-.30	.76
	Interaction	2.99	2.50	.16	1.19	.24

Noting Figure 5, it can be seen that the results were in the expected trend. Individuals who were in the Positive Feedback condition and were most fused with the goal reported lower scores on the identity disturbance items than individuals in the Negative Feedback condition at the same fusion level. Also, individuals in the Negative Feedback condition at the lowest fusion level

reported lower scores on the identity disturbance items than those in the Positive Feedback condition at the same low fusion level.



CHAPTER V

DISCUSSION

The aim of the present study was to provide evidence that Goal Fusion would moderate the effect of feedback on self-concept clarity. The results provided above did not support my original hypothesis that Goal Fusion and Feedback would interact to impact SCC. However, the exploratory analyses conducted did offer some promise. First, these analyses revealed a significant main effect of Goal Fusion. Importantly, this is the first empirical demonstration to link Goal Fusion with Self-Concept Clarity. Second, although not significant, the Goal Fusion \times Feedback interaction did produce the predicted data pattern and may reach statistical significance with a larger sample.

Limitations and Future Research

Several limitations were present in this current study. The initial, proposed study included the three feedback conditions and in the end did not function as expected for the No Feedback group. This was a major limitation in that this group was created with the purpose of using it as a control comparison group. This group may not have acted in the predicted way for a number of reasons, all theoretical. First, perhaps those individuals who did not receive any feedback felt uncomfortable under uncertainty after their test was taken by the researcher.

With neither positive nor negative feedback, they did not have the opportunity to use the evaluative information to assess their performance and, in part, themselves as the other two conditions. Second, the No Feedback group was not given the chance to use social comparison as the other two feedback groups. Because social comparison gives individuals crucial information on forming possible selves (see Suls, Martin, & Wheeler, 2002), the No Feedback group lacked any score or comparison information with others from the study.

Another limitation related to the feedback in the current study was that I did not include a manipulation check that assessed whether participants believed their assigned feedback. Ayduk, Gyruk, and Luerksen (2009) found that it is possible for a person's SCC to decrease when given rejection feedback. Therefore, it is crucial for participants to not only understand the gravity of the feedback information but also believe that it was real feedback. This limitation is two-fold. Firstly, I did not assess after the conclusion of the study whether participants believed their given feedback (if they received anything). Secondly, the instructions prior to the analytical questionnaire were perhaps too simple. By including a more in depth version of the instructions by, for example, citing a study that states how important the test the participants are about to take is for the field of psychology then the participants might not only try harder but also be more affected by the feedback following the test.

Another change that would recommend for any future study would be to change the gravity of the goal and relate it more to the target population. In the current study, the goal was "to learn psychology". This goal is perhaps too simple or general in that it, in theory, should encompass every psychology major and also any student who wishes to perform well in a psychology course despite their major. If changes to the seriousness of the analytical test come in the form of more intense instructions and feedback, then I would also make the goal more serious. For example, one could make the goal to pursue a career in psychology or to get into a psychology graduate program. This could then in turn be easily followed up in the demographics section with a

question like “are you planning to pursue a career in psychology?” or “are you planning on attending graduate school in psychology?”

Among the changes listed in the limitations, I would like to see any future studies conducted in this area focus more on psychology majors. Participants who were psychology majors made up a small proportion of the study’s sample (22.5%). I would expect that a study of strictly psychology majors paired with the more important instructions for the analytical questionnaire (i.e. that it is crucial for psychology graduate students) would result in a more dramatic effect than any found in the present study.

Implications and Conclusions

Previous research on the self-concept and SCC has not investigated the potential influence of Goal Fusion. The present area of research is thus a first step in ensuring that this crucial gap in the literature is addressed. Like those researchers who have investigated the inclusion of others (see Aron, Aron, & Smollan, 1992; Slotter, Gardner & Finkel, 2010; Swann, Gomez, Seyle, Morales, & Huici, 2009) this new area of research can spawn several future studies that would not only benefit the research area of the self but also the area of motivation.

REFERENCES

- Aiken, L. S., & West, S. G. (1991). Multiple regression: Testing and interpreting interactions. Thousand Oaks, California: Sage Publications.
- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, 63, 596-612.
- Ayduk, O., Gyurak, A., & Luerssen, A. (2009). Rejection sensitivity moderates the impact of rejection on self-concept clarity. *Personality and Social Psychology Bulletin*, 35, 1467-1478.
- Bechtoldt, M. N., De Dreu, C. K. W., Nijstad, B. A., & Zapf, D. (2010). Self-concept clarity and the management of social conflict. *Journal of Personality*, 78, 539-574.
- Blanton, H., & Jaccard, J. (2006). Arbitrary metrics in psychology. *American Psychologist*, 61, 27-41.
- Bluck, S. & Alea, N. (2009). Thinking and talking about the past: Why remember? *Applied Cognitive Psychology*, 23, 1089-1104.
- Burkley, E., Anderson, D., & Curtis, J. (2012). Goal fusion. Manuscript in preparation.
- Burkley, M. & Blanton, H. (2008). Endorsing a negative in-group stereotype as a self-protective strategy: Sacrificing the group to save the self. *Journal of Experimental Psychology*, 44, 37-49.

- Campbell, J. D. (1990). Self-esteem and clarity of the self-concept. *Journal of Personality and Social Psychology*, 59, 538-549.
- Campbell, J. D., Assanand S., & Di Paula, A. (2003). The structure of the self-concept and its relation to psychological adjustment. *Journal of Personality*, 71, 115-140.
- Campbell, J. D., Trapnell, P. D., Heine, S. J., Katz, I. M., Lavallee, L. F., & Lehman, D. R. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology*, 70, 141-156.
- CNN (2011, January 14). 'New' zodiac signs cause instant identity crises. CNN. Retrieved from <http://www.cnn.com>
- Csank, P. A. R., & Conway, M. (2004). Engaging in self-reflection changes self-concept clarity” On differences between women and men, and low - and high- clarity individuals. *Sex Roles*, 50, 469-480.
- Custers, R. (2009). How does our unconscious know what we want? The role of affect in goal representations. In G. B. Moskowitz and H. Grant (Eds.) *The Psychology of Goals* (pp. 179-202). New York: Guilford Press.
- De Dreu, C. K. W., & van Knippenberg, D. (2005). The possessive self as a barrier to conflict resolution: Effects of mere ownership, process accountability, and self-concept clarity on competitive cognitions and behavior. *Journal of Personality and Social Psychology*, 89, 345-357. doi:10.1037/0022-3514.89.3.345
- Diehl, M., Jacobs, L. M., & Hastings, C. T. (2006). Temporal stability and authenticity of self-representations in adulthood. *Journal of Adult Development*, 13, 10-22. doi:10.1007/s10804-006-9004-4
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117-140.
- Gilbert, D. T., Giesler, R. B., & Morris, K. A. (1995). When comparisons arise. *Journal of Personality and Social Psychology*, 69, 227-236.
- Kihlstrom, J. F., & Cantor, N. (1984). Mental representations of the self. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (pp.1-47). San Diego, CA: Academic Press.
- Kihlstrom, J. F., Cantor, N., Albright, J. S., Chew, B. R., Klein, S. B., & Niedenthal, P.M. (1988). Information processing and the study of the self. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (pp.145-178). San Diego, CA: Academic Press.
- Lewandowski Jr., G. W., Nardone, N., & Raines, A. J. (2009). The role of self-concept clarity in relationship quality. *Self and Identity*, 9, 416-433.

- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35 odyssey. *American Psychologist*, 57, 705-717.
- Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology*, 35, 63-78.
- Markus, H. & Wurf, E. (1987). The dynamic self-concept: A social psychological perspective. *Annual Review of Psychology*, 38, 299-337.
- Matsuba, M. K. (2006). Searching for self and relationships online. *CyberPsychology and Behavior*, 9, 275-284.
- McKinley, J. (2011, January 14). Did your horoscope predict this? The New York Times. Retrieved from <http://www.nytimes.com>
- Oettingen, G., & Stephens, E. J. (2009). Fantasies and motivationally intelligent goal setting. In G. B. Moskowitz and H. Grant (Eds.) *The Psychology of Goals* (pp. 153-178). New York: Guilford Press.
- Slotter, E. B., Gardner, W. L., & Finkel, E. J. (2010). Who am I without you? The influence of romantic breakup on the self-concept. *Personality and Social Psychology Bulletin*, 36, 147-160.
- Stinson, D. A., Wood, J. V., & Doxey, J. R. (2008). In search of clarity: Self-esteem and domains of confidence and confusion. *Personality and Social Psychology Bulletin*, 34, 1541-1555.
- Story, A. L. (2004). Self-esteem and self certainty: A meditational analysis. *European Journal of Personality*, 18, 115-125. doi:10.1002/per.502
- Stucke, T. S., & Sporer, S. L. (2002). When a grandiose self-image is threatened: Narcissism and self-concept clarity as predictors of negative emotions and aggression following ego-threat. *Journal of Personality*, 70, 509-532.
- Suls, J., Martin, R., & Wheeler, L. (2002). Social comparison: Why, with whom, and with what effect? *Current Directions in Psychological Science*, 11, 159-163.
- Swann, W. B., Gomez, A., Seyle, D. C., Morales, J. F., & Huici, C. (2009). Identity fusion: The interplay of personal and social identities in extreme group behavior. *Journal of Personality and Social Psychology*, 96, 995-1011.
- Thomas, C. R. & Gadbois, S. A. (2007). Academic self-handicapping: The role of self-concept clarity and students' learning strategies. *British Journal of Educational Psychology*, 77, 101-119.
- Ward, Bill (2011). The stars might not actually be aligned in your favor. What's your sign? Probably not what you think, thanks to the earth's "wobble". Star Tribune. Retrieved from <http://www.startribune.com>

APPENDICES

Appendix A

CONSENT FORM

Project Title: A Performance Study of Psychology Students

Investigator: Jessica Curtis & Dr. Ed Burkley

Affiliation: Psychology Department, Oklahoma State University

Purpose: To examine levels of performance on a common skill of psychology students.

Procedures: You will be asked to complete a series of analytical questions and respond to other psychological measures (length: 60 min).

Risks of Participation: There are no known risks associated with this project that are greater than those ordinarily encountered in daily life. It is possible that you may feel uncomfortable with the personal information you will be asked.

Benefits: There are no direct benefits to participants.

Confidentiality: Your responses are completely confidential and will in no way be associated with your name. The records of this study will be kept private. Any written results will discuss group findings and will not include information that will identify you. Research records will be stored securely in North Murray 018 for 5 years and only researchers and individuals responsible for research oversight will have access to the records.

Compensation: You will receive 1 unit of research credit for participation today. Your credit will be awarded through the online SONA system, and your instructor will receive a report by the end of the semester. Courses that participate in the online SONA system allow for comparable credit to be obtained through participation in non-research related activities. Contact your instructor for a list of those activities.

Contacts: Jessica Curtis (jessica.curtis@okstate.edu) is a Psychology graduate student under the supervision of Dr. Ed Burkley at Oklahoma State University. If you have any questions about this study, you may contact Dr. Edward Burkley at 744-6951 (ed.burkley@okstate.edu). If you have questions about your rights as a research volunteer, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu.

Participant Rights: By checking below, you are indicating that your participation today is voluntary; you are free to withdraw at any time. You are also free to skip any question or task that you do not feel comfortable completing.

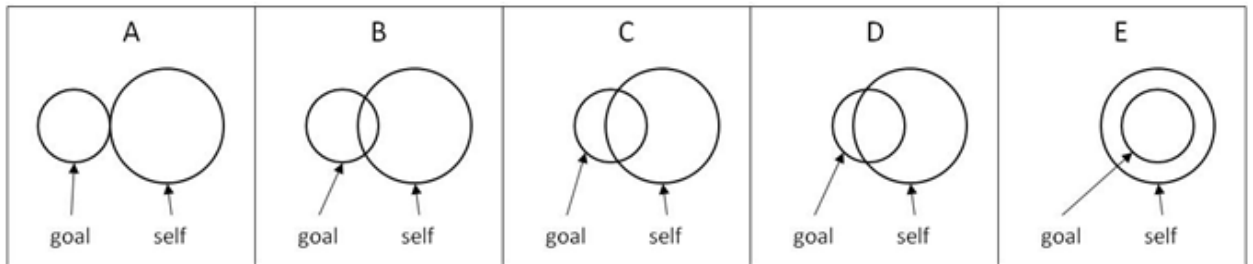
Participant's Signature_____

Appendix B

Goal Fusion Questionnaire

Please answer the following questions regarding the goal to learn psychology.

Sometimes it feels like the goals we are pursuing are a part of who we are, that they are included in our self. With the goal of learning psychology in mind, please select the picture that best represents how much this goal is included in yourself or a part of who you are.



Appendix C

Analytical Questionnaire

You have twenty minutes to complete the following questions. Please circle your answer on this sheet.

1-3. In an experiment conducted at a laboratory, 160 white mice were injected with Serum D. 160 other white mice were injected with a harmless sugar solution. In two weeks time 39% of the white mice, who were injected with Serum D contracted the highly contagious and often fatal disease, jungle fever. Hence, it can be concluded that jungle fever is caused by some elements similar to the elements in Serum D.

1. The above discussion would be weakened most severely in the case it is shown that

- A. People contracting jungle fever are usually the victims of the bite of the South American Lesser Hooded Viper.
- B. One among the 160 white mice had already contracted jungle fever prior to the laboratory experiment.
- C. The natural habitats of white mice does not contain any of the elements found in Serum D.
- D. The scientists administered the injections being ignorant of the contents of the solutions used.
- E. The 160 white mice used in the laboratory experiment were kept isolated from each other.

2. The above argument would be highly empowered in the case it was shown that:

- A. Some of the elements in Serum D are extracted from the root of a certain poisonous jungle wildflower.
- B. Within a period of two weeks about 40% of the white mice, who were injected with a harmless sugar solution also contracted jungle fever.
- C. Almost all the white mice died within a period of two days after the first symptoms appeared.
- D. Normally the rate of jungle fever among white mice is less than 0.01%.
- E. Invariably the blood of the victims of jungle fever contains a high level of a certain toxic substance also found in serum D.

3. Distribution of leaflets and delivering speeches on government property should be outlawed. Radicals and fanatics have no right to use public property when peddling their unsavory views.

The argument above is based on which postulate

- A. The general public has a special concern in the free exchange of different political views.
- B. Radicals and fanatics prefer the use of public property while propagating their viewpoint.
- C. Every person who hands out leaflets and delivers speeches is a radical or fanatic.
- D. Legal constraints which are applicable to one group need not be equally applicable to all.
- E. Any political activity, which hinders the proper functioning of the government should not be protected by the law.

4-8. Two or more essences out of a stock of five essences-- L, M, N, O, and P are used in making all perfumes by a manufacturer. He has learned that for a blend of essences to be agreeable it should comply with all the rules listed below:

- A perfume containing L, should also contain the essence N, and the quantity of N should be twice as that of L.
- A perfume containing M must also have O as one of its components and they should be in equal proportion.
- A single perfume should never contain N as well as O.
- O and P should not be used together.
- A perfume containing the essence P should contain P in such a proportion that the total amount of P present should be greater than the total amount of the other essence or essences used.

4. Among the following which is an agreeable formula for a perfume?

- A. One part L, one part P
- B. Two parts M, two parts L
- C. Three parts N, three parts L
- D. Four parts O, four parts M
- E. Five parts P, five parts M

5. Adding more amount of essence N will make which of the following perfumes agreeable?

- A. One part L, one part N, five parts P
- B. Two parts M, two parts N, two parts P
- C. One part M, one part N, one part P
- D. Two parts M, one part N, four parts P
- E. Two parts N, one part O, three parts P

6. Among the following, the addition of which combination would make an un-agreeable perfume containing two parts N and one part P agreeable?

- A. One part L
- B. One part M
- C. Two parts N
- D. One part O
- E. Two parts P

7. Among the following which combination cannot be used together in an agreeable perfume containing two or more essences?

- A. L and M
- B. L and N
- C. L and P
- D. M and O

E. P and N

8. Among the below mentioned formulas, which can be made agreeable by the eliminating some or all of one essence?

- A. One part L, one part M, one part N, four parts P
- B. One part L, two parts N, one part O, four parts P
- C. One part L, one part M, one part O, one part P
- D. Two parts L, two parts N, one part O, two parts P
- E. Two parts M, one part N, two parts O, three parts P

Appendix D

Analytical Performance Feedback Script

Success Condition:

The Analytical Questionnaire is designed to assess the skills required to being a good psychologist. The average psychology student at OSU scores an 80 (out of 100). Your score is a 93. This score is significantly above that of the average OSU psychology student indicating that you possess desired analytical skills required for becoming a good psychologist. Approximately 35% of OSU psychology students at this campus get a score of this value or more.

Failure Condition:

The Analytical Questionnaire is designed to assess the skills required to being a good psychologist. The average psychology student at OSU scores an 80 (out of 100). Your score is a 67. This score is significantly below that of the average OSU psychology student indicating that you do not possess the desired analytical skills required to be a good psychologist. Approximately 35% of OSU psychology students at this campus get a score of this value or less.

No Feedback Condition:

The researcher will continue with the remaining materials of the experiment without revealing anything about the participant's score on the analytical questionnaire.

Appendix E

Self-Concept Clarity (SCC) Scale

1. My beliefs about myself often conflict with one another.
2. On one day I might have one opinion of myself and on another day I might have a different opinion.
3. I spend a lot of time wondering about what kind of person I really am.
4. Sometimes I feel that I am not really the person I appear to be.
5. When I think about the kind of person I have been in the past, I'm not sure what I was really like.
6. I seldom experience conflict between the different aspects of my personality.
7. Sometimes I think I know other people better than I know myself.
8. My beliefs about myself seem to change very frequently.
9. If I were asked to describe my personality, my description might end up being different from one day to another day.
10. Even if I wanted to, I don't think I could tell someone what I'm really like.
11. In general, I have a clear sense of who I am and what I am.
12. It is often hard for me to make up my mind about things because I don't really know what I want.

Appendix F

Identity Disturbance Scale

1. I don't really know how I feel about myself.
2. My sense of who I am often changes.
3. I sometimes wonder who I really am.
4. I can be so different with different people that it's like I'm not the same person.
5. I can be so different with different people that I wonder who I am.
6. I tend to feel like I don't belong with anyone.
7. I often feel like an outcast.
8. At times I feel so ashamed that I want to be away from other people.
9. I am often ashamed of my thoughts and feelings.
10. I frequently feel inferior to others.

Appendix G

Career/Major Self Concept Clarity Items

1. My beliefs about myself as a psychology major often conflict with one another.
2. On one day I might want to pursue a career in psychology and on another day I might have a different opinion.
3. I spend a lot of time wondering if I want to pursue a psychology career.
4. Sometimes I feel that I am not really the psychology student I appear to be.
5. My beliefs about my choice of major change very frequently.
6. If I were asked to describe my ideal career, my description might end up being different from one day to another day.
7. In general, I have a clear sense of the career I want to pursue.

Appendix H
Demographics

What is your age (in years)? _____

What is your sex?

- ☐ Male
- ☐ Female

Which group best describes you (you may select more than one option)?

- ☐ White
- ☐ African American/Black
- ☐ Latino/Latina/Hispanic
- ☐ Native American/Alaskan Native
- ☐ Asian/Pacific Islander
- ☐ Other

What is your class ranking?

- ☐ Freshman
- ☐ Sophomore
- ☐ Junior
- ☐ Senior

Are you a Psychology Major?

- ☐ Yes
- ☐ No, but I plan on declaring as one
- ☐ No. Please list your major _____

To protect your identity, we will create a personalized ID and use this number, instead of your name, to link your data. To create this ID code, we need you to provide the following information:

What are your initials (the first letter of your first name and last letter of your last name)? __ __

What is your birthday date (Month, Day, and Year)? __ __ - __ __ - __ __ __ __

For example, if your birthday was Jan 12, 1980, you would put 01-12-1980.

Appendix I

DEBRIEFING

Thank you for participating in this study. The purpose of today's study is to assess the degree to which individuals include their goals in their self-identity and how this inclusion affects one's clarity of the self. The overlap of another person with an individual's self-identity is an interesting concept and has been recently adapted into what is termed identity fusion. Fused individuals experience a blurred barrier between their self-identity and their group identity, which has been shown to cause high levels of extreme behaviors on behalf of the group if either identity is challenged. It is hypothesized that success or failure on the performance of a fused goal could alter a person's self-concept clarity. Because of this, the researchers provided false feedback about your performance on the analytical questionnaire in order to create experimental conditions for success and failure. This deception was necessary to provide a sense of either success or failure performance. The researchers of this study are interested in the emotional and behavioral effects of those individuals who are fused with the goal in comparison to those who are not.

As researchers we understand that some aspects of this study may have caused you high anxiety and/or stress. Thus, we have provided you the contact information of all the student counseling services available on campus. If you have any concerns about your experience in this study, please refer to this information or see the researcher.

Confidentiality is a big part of research. As we mentioned on the consent form, we maintain the confidentiality of our participants, but it is expected that participants maintain the confidentiality of the researchers as well. We will be conducting this research until the end of the semester so we ask that you not discuss this experiment with your friends or others who may participate in this study at a future date. You may unknowingly tell someone else who is scheduled to participate in this study, and this would ruin our findings.

If you were interested by this research and wish to learn more about it and other related research, please contact Dr. Ed Burkley (414 NM, ed.burkley@okstate.edu). Jessica Curtis is a graduate student under the supervision of Dr. Edward Burkley. He will be happy to discuss this and any related projects with you.

If you have questions or concerns about your rights as a research subject you may contact, anonymously if you wish, Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu

Thank you again for your participation in this study!

Appendix J

Counseling Resources

Without a doubt, college life is stressful. Luckily, there is no need to feel alone. There are many resources on the Oklahoma State Campus. If you need advice about a personal situation or if you feel overly stressed, remember there is help!

On Campus

University Counseling Services
316 Student Union (405) 744-5472
<http://www.okstate.edu/ucs/Counselingservice.htm>

OSU University Health Services
1202 W. Farm Rd.
(405) 744-7665
[http://www.okstate.edu/UHS/uhsservices.htm#counseling services](http://www.okstate.edu/UHS/uhsservices.htm#counseling%20services)

Psychological Services Center
118 N. Murray Hall
(405) 744-5975
<http://psychology.okstate.edu/psc/index.html>

Off Campus

Edwin Fair Community Mental Health Center
712 Devon St
Stillwater, OK 74074
(405) 372-6100
<http://efcmhc.com/>

Stillwater Interfaith Counseling
306 W 7th Ave
Stillwater, OK 74074
(405) 624-5840

Stillwater Domestic Violence Center
115 E 4th Ave
Stillwater, OK 74074
(405) 624-3020
<http://www.sdvs.org/>

Rape Crisis Hotline
Stillwater, OK 74074
(405) 624-3020

Oklahoma State University Institutional Review Board

Date: Friday, August 12, 2011
IRB Application No AS1183
Proposal Title: A Performance Study of Psychology Students

Reviewed and Processed as: Expedited

Status Recommended by Reviewer(s): Approved Protocol Expires: 8/11/2012

Principal Investigator(s):

Jessica Curtis
116 N. Murray
Stillwater, OK 74078

Edward Burkley
116 North Murray
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

☒ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,



Shelia Kennison, Chair
Institutional Review Board

VITA

Jessica Marie Curtis

Candidate for the Degree of

Master of Science

Thesis: WHEN FAILURE HURTS THE MOST: GOAL FUSION AND THE IMPACT
OF NEGATIVE FEEDBACK ON SELF-CONCEPT CLARITY

Major Field: Psychology

Biographical:

Education:

Completed the requirements for the Master of Science in psychology at
Oklahoma State University, Stillwater, Oklahoma in July, 2012.

Completed the requirements for the Bachelor of Arts in psychology at
Oklahoma State University, Stillwater, Oklahoma in 2010.

Experience:

Burkley, E., Anderson, D., & Curtis, J. (2011). You wore me down:
Self-control and social influence. *Social and Personality
Psychology Compass*, 5, 487-499. doi: 10.1111/j.1751-
9004.2011.00367.x

Professional Memberships:

American Psychological Association (APA)

Division 8

Society for Personality and Social Psychology (SPSP)

Southwest American Psychological Association (SWPA)

Oklahoma Network for Teaching of Psychology (ONTOP)

Psychology Graduate Students Association (PGSA)

Psi Chi National Honor Society

Name: Jessica Curtis

Date of Degree: July, 2012

Institution: Oklahoma State University

Location: Stillwater, Oklahoma

Title of Study: WHEN FAILURE HURTS THE MOST: GOAL FUSION AND THE
IMPACT OF NEGATIVE FEEDBACK ON SELF-CONCEPT CLARITY

Pages in Study: 38

Candidate for the Degree of Master of Science

Major Field: Psychology

Scope and Method of Study: The purpose of the present study was to investigate the effect of negative feedback on self-concept clarity. The potential moderating effect of goal fusion was also explored. Participants completed the Goal Fusion questionnaire in regards to the goal to learn psychology. After completing a 20 minute analytical questionnaire, participants were given false feedback about their performance. Finally, participants completed a series of questionnaires that included measures of self-concept clarity, identity disturbance, and major/career clarity. Demographics were recorded at the end of the study.

Findings and Conclusions: It was found that individuals who were more fused with the goal to learn psychology and received successful feedback from their analytical questionnaire reported a clearer self-concept clarity than individuals at the same fusion level who received failure feedback. In conclusion, research on the self-concept has not yet investigated the potential influence of Goal Fusion. The present study was thus designed to provide a first step in addressing this crucial gap in the literature.

ADVISER'S APPROVAL: Dr. Ed Burkley
